TUBERCULAR BACILLI.

Pictures Illustrating the Nature and Lo-cation of the Microbes.

It is well known that infectious dises, such as consumption and cholera, have a parasitic origin, and that each one of them has its characteristic microorganism. In 1878 Dr. Koch published his "Untersuchung ueber die Actiologie

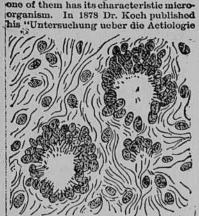


Fig. 1.—Section through tubercles of the lungs, showing two large cells with numerous bacilii. The specimen having been colored, the bacilli appear as dark dashes. Magnified nine

der Wundinfectionskrankheiten," which embodied the results of his investiga-tions in this field of research and formed the basis of future study, the result of which was the discovery of the bacillus of tuberculosis. The course followed by Dr. Koch has been so fully explained that it seems unnecessary to treat the subject again in detail, but we publish to-day two excellent cuts, for which we are indebted to the Illustrirte Zeitung, showing the bacilli alone and as they are found in the tubercles.

Dr. Koch's methods, which have been

so strikingly confirmed by his work,





Fig. 2.—Tubercular bacilli, magnified two thousand times. At the left, bacilli free from spores. At the right, bacilli with coloriess places which are supposed to be spores.

have opened new fields in the science of bacteriology, and the results of his work have been felt in every department of medicine.

PROGRESS IN SCIENCE.

A new material called "lactite" has recently appeared in England as a substitute for bone or celluloid. Casein is the principal constituent.

A telephone line about five miles long has been established in Iceland, and is regarded as a great curiosity, being the first ever established on the island.

It has been determined that as far as the danger to ship's compasses from magnetic leakage from the dynamo is concerned, it is equally the same whether the ship is double or single

The National powder-mill at St. Medard-en-Jalle, in France, has recent-ly been lighted by incandescent lamps, and it is believed to be the first mill of its class on the continent to use electric lighting.

Examples have been found in this country of kyanized timber which was in a good state of preservation after twenty-eight years' exposure, but it seldom lasts a very long time when used for railway sleepers.

It is stated that in a recent gale the anemometers on the top of the Eiffel Tower registered 630 miles per hour. M. Mascart says that had this velocity occurred at the level of the city every chimney would have been leveled to the

Prof. Thurston says: "The assumption seems fair that the locomotive en-gine will have been superseded when we double our speeds, and that we must find ways to utilize the weights of the cars themselves for the adhesion and to make each carry its own motion."

While sinking a mine shaft recently at Mysore the workmen broke into an old shaft, dug perhaps a thousand years or more ago, and in which were found implements of various kinds that bore unmistakable evidence of the former workmen being Chinese.

An electrical railway fog signaling apparatus being experimented with in England has given great satisfaction. By means of a metal rail at some distance from the ordinary signals, a sliding contact on the locomotive completes an electric circuit and works the signal

Ordinary accumulators or storage bat-teries for electrical work are not very portable, owing to the liquids they contain. In consequence of this trouble it has been proposed to add a little so-dium silicate to the cell, which has the effect of turning a sulphuric acid solu-

tion into a jelly. Manufacture of Rubber Stamps A rubber stamp requires very little of the gum, yet the Journal of Useful In-vention states that one firm in New York buys one thousand pounds annually. There are, says that journal, rubber stamp concerns everywhere, and the consumption must be very large. Very good rubber is used, and few manfirm surface is necessary, and to obtain this the compounding must be exact for the purpose. Then the heat for vulcantae purpose. Then the neutror vaccan-izing is a matter of importance. Steam heat is considered best, for dry heat is apt to scorch and spoil the stamp. Great care is used, so that the rubber will not get too hard or glazed, which is fatal to good work. The best manufacturers use machines which are the molds and vulcanizers combined. Every thing has to be true, and little

vibration in the platens is permitted.

A thermometer attached to the ma-

chine determines the right heat. Small

establishments are not so particular, and poor work is the result. The

slower the vulcanization the greater the flexibility. Some makers rush mat-

ters, curing the rubber in six minutes. Such stamps will become as hard as an electrotype in a month, when they are

SOUTHWEST VIRGINIA NOTES.

The will of the late Judge Gideon D. Camdon was offered for probate at Clarksburg, W. Va., Monday, and pro-test and notice of contest in behalf of children and grandchildren were served on the clerk. This probably opens the greatest legal battle over a will ever occurring in West Virginia.

Andrew Kennedy, aged seventy-seven years, for many years a salesman for Smith & Curlett, of Baltimoro, died at Staunton, May 2. He was a member of the old Staunton Artillery, and served all through the war. all through the war.

A colored man named Henry Jones, who was arrested in Parkersburg, W. Va., Tuesday, as a suspect, confessed that he recently murdered a white man in Fayette county.

Thomas McGill, a native of Freder-icksburg, and Northwestern agent of the Georgia Associated Tariff Line, died in Chicago Tuesday.

The pay-roll of the Bertha Zino Works at Pulaski City now exceeds \$23,000 monthly, and their capacity is to be

largely increased. Refreshing rains fell in some of the southside counties Tuesday.

Hon. Charles T. O'Ferrall will deliver the address on Confederate Memorial Day at Winchester, June 6.

Five hundred Union veterans from Washington will visit Fredericksburg May 30—National Decoration Day.

The reports of the farmers from the various sections of Campbell as to the damage done by the late frost are somewhat conflicting. Some consider the damage slight; others think that the camage signt; others think that the fruit crop is greatly damaged, if not totally destroyed. The mischief was done not merely by the frost, but by the cold, blasting wind which followed. It is expected that much of the fruit now remaining will fall off, but there will still be a good deal left.

The jury in the Stevens murder case at Fincastle, after being out two days, brought in a verdict of guilty, and fixed his term in the penitentiary at eighteen

About two-thirds of the 196 miles of track from Elkhorn, West Virginia, to Ironton, Ohio, has been graded, and the laying of rails has commenced at Ironton and at Kanawha, West Virginia.

Work on the new station of the Chesapeake and Ohio railway at Basic City has been begun and the building is to be completed within thirty days.

The contractors for the building of the National Boulevard at Fredericksburg, are busy getting out the stone and will begin work on the roadway this morning. The work will commence with twenty-five hands, and the stone for the work will be taken from Hunter's Island. ter's Island.

Workmen are now engaged in building fifty new houses, scattered in various sections of Buena Vista. Information is given that fully five hundred ad-ditional buildings are now under contract.

The Norfolk and Western railroad has a force of men engaged in putting in a side track on the north side of New River at Radford to be used by the American Bridge Company, for storing material for the bridge works on that side of the river.

Bishop A. W. Wilson, of the M. E. Church, South, will preach the annual sermon before the young ladies of Suf-folk Female Institute on Sunday, June 7, 1891, at 8 p. m.

7, 1891, at 8 p. m.

The regular annual meeting of the Basic City Building and Investment Company was held Tuesday. A dividend of 4 per cent. was declared, payable on or before the 15th of July next, which is really equivalent to 8 per ceat. per annum. An election of officers for the ensuing year was held, with the following result: President, Isaac Witz; vice-president, J. M. Quarles; secretary and treasurer, J. F. Willson; manager, J. T. Lightner. manager, J. T. Lightner.

The first consignment of machinery for the cutlery factory at Elkton has arrived. It consists of small articles intended chiefly for the grinding and finishing rooms.

A special from Rocky Mount says that A special from Rocky Mount says that Victoria Hodges, who a year or more ago shot and killed R. J. Cunningham, a sewing-machine agent who had visited her house of ill-fame, was tried in the County Court of Franklin county yesterday and was found guilty of manslaughter. Her punishment was fixed at six years in the penitentiary. A motion for a new trial was overruled.

The frosty nights of last week did ss damage in and around Wytheville than was at first feared, though reports from the country indicate that a little more harm has resulted at a a little more harm has resulted and distance from town. The grapes and tinderer vegetables were slightly nipped, but cherries, pears and apples were not injured at all.

S435.575

For the year ended May 1 \$435,575 was spent in Staunton and vicinity in buildings, factories and development.

Capt. J. C. Boude has sold his farm, on the southern edge of Lexington, for \$10,000 to a syndicate, which will lay it

Benjamin Johnson, living near Lebanon, accidentally shot and killed himself with a gun Wednesday evening of last week.

读A Northern party is corresponding with the Bedford City Company relative to the removal of his knitting mill to Bedford City.

The purchase of the Ætna furnace property at Ironton, Ohio, by parties representing the Norfolk and Western syndicate has been announced. This purchase comprises the Ætna, the Sarah and the Vesuvius furnaces; also 17,000 acres of mineral land, the whole valued at \$1,700,000.

Last week Mr. D. W. Glass, of Balti-more, purchased sixty-eight acres of land from Messrs. Hicks, Bane & Kelly in East Graham.

ad SW VA Judge B. A. Hancock, of the circuit court of Petersburg, has granted a char-ter to the City Point Land Improvement and Development Company. The capiter to the City Point Land Improvement and Development Company. The capital stock is not to be less than \$800,000. The purposes for which the company is formed are to manufacture fabrics of different kinds, erect, maintain and manage electric works, gas works, hotels, lay off town sites, etc. The principal office is to be in Petersburg. The officers for the first year are: C. D. Tinsley, of Petersburg, president; M. S. Kleppinger, of Philadelphia, secretary; Henry Harrison, of Philadelphia, treasurer, who, together with C. A. Pfau, of Philadelphia, and R. J. Harrison, of Philadelphia, are directors.

| A. S. ASBERRY, P. M. Williams, Williams, Miss Dollie Persons calling for the above will please say they were advertised May 17, 1891.

DO YOU WANT AWNINGS?

Wilkinson & Lallemand, of Salem, Are Ready to Put Them Up for You.

As the hot season approaches people begin to prepare for the creature comforts and to ward off the sun. What an umbrella is against the rain and a parasol for protecting a lady's face from the sun, awnings are to the comfort of houses and offices in the summer.

Traveling around Roanoke one finds that scores of places are putting up awnings of all sizes, shapes and material. Among the best firms engaged in this business is that of Wilkinson & Lallemand, of Salem, Va.

They erected the awnings in front of THE TIMES office, and will place seventytwo awnings on Hotel Ponce de Leon. Among the many patrens of this firm are F. B. Kemp & Co., Mr. Haislip, Mr. R. E. Scott and other prominent people. Their work is highly artistic and finished, and their material strong, durable and up to the standard.

Wilkinson & Lallemand are prepared to make and up to the standard.

Wikinson & Lallemand are prepared to make and put up awnings of any size and in any number for offices, hotels and private residences. Having a large force they can attend promptly to orders, and are ready at any time to visit houses and make estimates. Those who contemplate putting un awnings are recontemplate putting up awnings are requested to drop a postal to Wilkinson & Lallemand, Salem, Va.

Hustling Engineers.

The complete furnishings of the newly formed Virginia Engineers' Association headquarters in Roanoke will arrive early during the coming week, and it is expected that the rooms will be in readiness for the occupants before the next seven days roll around. The monthly meetings of the organization will then be taken in hand at once—at least the first regular session is scheduled to take place by June 1. A reception on the occasion of the headquarers' opening is on the tapis, but no defiors' opening is on the tapis, but no defi-nite conclusion has been arrived at in

Hustings Court.

In the Hustings Court a decree was entered in the injunction case of J. M. Mangus and T. C. Deaton vs. J. Goldstein and G. M. Berlin, dissolving the injunction.

In the case of Lavell, trustee, vs. Lavell, a decree was entered giving A. L. Lavell, trustee, to sell two lots, the property of the Lavell heirs.

Thirty Days in Jail.

Chas. Morrison, colored, who was caught in the act of rifling the pockets of the coats of some of the workmen on the Lee House Friday, was given a hearing before Justice Howerton yester-day. He was sent to jail for thirty days for petty larceny.

The Norfolk and Western Railroad Company has purchased land on which to erect a \$20,000 passenger station at Berryville, Clarke county.

If you wish to buy anything in the musical instrument line you can do no better anywhere in the country than by patronizing the well known, and reliable firm of The Hobbie Music Co., 157 Salem avenue, Roaneke, Va. Largest dealers, lowest prices, easiest pay-ments. Pianos for rent also. Call or

Stone Work.

Didier and Hyman will do any kind of stone work at short notice. Office Didier building, Campbell street. mays-tf

Stone Work.

Didier and Hyman will do any kind of stone work at short notice. Office Didier building, Campbell street. may8-tf

Awnings! Awnings!!

If you want an awning for your store front store or windows drop us a postal and we will come up and make estimates for you. WILKINSON & LALLEMAND, Salem, Va. apr14-2m

Now is your chance to get a good lot in Crystal Spring. Special inducements to parties wanting to build.

Summer is Coming.

Spring is here and summer is approaching. Prepare to keep cool by having Wilkinson & Lallemand, Salem, Va., make you an awning for your store or residence. your store or residence. apr14-2m.

The scenery from the Crystal Spring property is unsurpassed.

Ladies, clean your kid gloves with Mather's Glove Cleaner. For sale only at Snyder & McBain's dry goods store.

You are in a Bad Fix.

But we will cure you if you will pay us. Nervous and Debilitated, suffering from Nervous Debility, Seminal Weakness, and all the effects of early evil habits, or later indiscretions, which lead to Premature Decay, Consumption or Insanity, should send for and read the "Book of Live," giving particulars of a home cure. Sent (sealed) by addressing Dr Parker's Medical and Surgical Institute, 151 North Spruce street Nashville, Tenn. They guarantee a cure or no pay.—The Sunday Morning

ADVERTISED LETTERS. A list of letters remaining in the postoffice at Roanoke, Va., for the week ending May 16, 1891.

GENTLEMEN'S LIST.

GENTLEMEN'S LIST.

Aimsworth, N. B.
Applebee, John (2)
Blaekard, W. T.
Bitner, C. S.
Cleinm, W. T. B. (2)
Cardfield, M.
Craig, Dick
Deshazo Homer
Davis, H. F.
Fye, John H.
Garlick, E. C.
Green, John
Henshaw, Chas.
Hood, F.
Hardy, Harry
Holt, Willie
Jackson, Ger.
Jackson, Ger.
Lask, M. L.
Jackson, Ger.
Lask, M. L.
Jackson, Ger.
Lask, M. L.
Jackson, Ger.
Lask, M. J.
Williams, W. J.
Whittow, Woodson
Yeakel, M. H.
LADIES' LIST.

CALVARY CEMETERY.

The Grounds to be Beautified and a Mor-

tuary Chapel Erected. Bishop Vanderyver, of the Richmond diocese, was in the city Thursday, and in company with Father Lynch, of St. Andrew's Church; C. O'Leary, Captain Davin and Captain J. H. Wingate, drove out to Mount Calvary cemetery, en Salem road, to view the ground and make plans for laying out and beautifying it.
On return the party dined at Captain

Davin's. Captain Davin will soon erect a mortuary chapel on a beautiful noll near the Salem turnpike. Wingate & Hainckel will have charge of the engineering work of laying off and improving the grounds.

Bucklen's Arnica Salve.

Bucklen's Arnica Salve.

The best salve in the world for cuts, bruises, sorces, ulcers, salt rheum, fever sores, tetter, chapped hands, chilbains, corns, and all skin eruptions, and positively cures piles, or no pay required. It is guaranteed to give perfect satisfaction, or money refunded. Price 25 cents per box. For sale by Budwell, Christian & Barbee tu,th,sat

DESIRABLE PROPERTY.

Some of the Advantages of the Exchange Addition----Beautiful Views and Fine Residences----An Electric Street Car Line to Run by the Property----Lots Selling Rapidly.

"Beautiful location.

"High rolling ground " "Within easy reach of the business part of the town."

"Excellent neighborhood, no unfavorable surroundings."

"These, among other things," said a prominent dealer in real estate, "have caused the lots of the Exchange Addition to sell so rapidly and make them

continually in demand." The property known as the Exchange Addition is situated in the southwest portion of the city. All of its land is within a radius of one mile from the Union depot.

From its sloping surface magnificent views of the surrounding country are obtained and a large number of residences, many of them beautiful and costly structures, are being erected on the property.

Just across the river lie the lands of the Crystal Spring Company, on which numerous improvements are being made.

Two iron bridges are to span the Roanoke river connecting the Crystal Spring lands with those of the city.

Numerous industries are to be located across the river, and an iron bridge is also to be built from the lands of the Exchange Addition across the river to the property of the Roanoke Power Company.

To the south of the Exchange Addition the Presbyterians have secured a site for the erection of a fine female seminary.

An electric street car line will run by the property, giving comfortable and quick means of transportation to any part of the city.

Cheap houses cannot be erected on this property, there being a restriction on every sale that no houses shall be erected costing less than \$1,500.

The lots are now being sold at \$750 each, and are being disposed of very rapidly. Gray & Boswell are sole agents for the property and will be glad to have parties interested inspect it.

-WE HAVE-

SECURED THEM.

Have Secured Several of the

IN THE

and on the best, terms now to be found in Roanoke,

IT WILL PAY YOU

to call and see them.

Real Estate Agents, 112 Jefferson St.

\$50,000,000.

Money to Lend at 5 Per Cent. Interest.

Stop Paying Rent and Own Your Home.

The Eastern Building and Loan Association OF SYRACUSE, NEW YORK,

By giving a positive guarantee as to time and cost, offers to the borrower the cheapest and most equitable plan of any building and loan association, and to the investor the safest and best. Its stock is non-forfeitable, and all monthly payments can be withdrawn at any time without loss, and with interest after sixth months.

Col. S. M. Ormsby, the general agent of the company in Virginia is in the city and can be found at the of-

J. H. CUTCHIN & CO.,

JEFFERSON

BOLIVER Saloon and Restaurant, No. 27 Salem ave. s. w. Fine Wines, Liquors, Cigars and Tobacco. No cheap Ryo Whiskey, Every gallon I have cost from \$2.50 to \$7.50 and is warranted pure. No adulteration. Meals from 6 to 9 a. m., 1.30 to 3 p. m., and 6 to

OPPENHEIM'S EXCHANGE

Has been removed to the SENATE SALOON building, corner Commerce street and First avenue, where "Baltimore Club," "Clover Club," and 'Oppenheim's Choice," analyzed by Prof. Aiken, University, and pronounced absolutely pure, can be found at the old stand. Wines, Liquors

Meals at all Hours.

Of Roanoke, Virginia. Authorized Capital, - - - - - \$25,000,000.

OFFICERS:

PRESIDENT-GEN. FITZHUGH LEE, ex-Governor of Virginia.

PRESIDENT—GEN. FITZHUGH LEE, ex-Governor of Virginia.

ST VICE-PRESIDENT — PEYTON L.
TERRY, President Roanoke Trust, Loan and Safe Deposit Co.
D VICE PRESIDENT—S. W. JAMISON,
Secretary and treasurer Roanoke
Trust, Loan and Safe Deposit Co.
SECRETARY—JOHN OTT, late Cashier
City Bank of Richmond.

TREASURER—J. C. DAVENPORT, Cashier Commercial National Fank, Roanoke, Va.
GENERAL COUNSEL—Hon. C. A. MC-HUGH, Counsellor-at-Law, late of Charleston, S. C.
GENERAL MANAGER OF AGENCIES—D
B. JESSE, late of Lexington, Ky.

Deposit Company.

INSTALLMENT STOCK.—Membership fee, \$1 per share, which carries the steek the first month, after that the monthly dues are 60 cents per share.
 PAID UP INTEREST BEARING STOCK.—\$50 per share (par value, \$100), yielding a dividend, payable semi-annually, January 1, and July 1, of 6 per cent. per annum, which is duly remitted by check to the shareholder.
 The stock is expected to mature in seven years from date of each series re-

The stock is expected to mature in seven years from date of each series respectively, the same being issued monthly. Apply at Home Office, 110 Jefferson street, or to

James R. Terry, or to Simmons, Carpenter & Tinsley, Roa-

-INVESTMENTS FOR ALL.-

We have special Bargains to offer in business property for 30 days only, and some desirable residence property improved and unimproved.

CALL FOR BARGAINS W. M. Tager, Will. Lunstord, Richmond and Roanoke addition. Best suburban property around Roanoke. Monthly payments \$16 cash, bal-ance \$8 per month, all lots 50x130, street 60 feet wide. Raference by permission, J.B. Levy, President Citizens' National Bank. H. S. Trout President First National Bank.

W. M. YAGER & CO. Real Estate Brokers, 106 Jefferson St.

PROPERTY

Are requested to call at the office of

BLAIR & CAMPBELL.

Rooms 3 and 4 Exchange Building, Roa-

LIST THEIR PROPERTY.

-We can offer-SPECIAL INDUCEMENTS

to persons desiring to buy CHEAP BUILDING LOTS, BUSI-NESS and

RESIDENCE LOTS

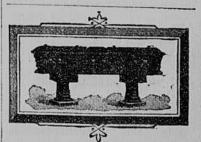
and dwelling houses for sale in all parts of the city.
mar20-tf

BARGAINS IN WALL PAPER. The largest and best selected stock of Wall Papers in Philadelphia, which we sell to the consumer at wholesale price.
Samples sent to all parts of the United
States free! Send for samples and compare our goods and prices with others.
CHAS. M. N. KILLEN, 614 S. 20th St.
Philadelphia, Pa. apr30-3m

OWNERS Roanoke Steam Dye Works BLEACHERY.

Silk, Cotton and Wool Dyed any colo when the original color is favorable. All kinds of goods scoured, dyed and cleaned. Ladies' kid shoes, gloves and feath-ers dyed and cleaned.

DEYON & WALSAK, Proprietors. 104 Campbell Street and 22 Commerce street Roanoke, and Main St., Salem.



G. W. Sisler, 407 Second street n.e Roanoke. Telephone 109. Undertaker, Embalmer and Funeral Director. Calls answered in city or country. Full stock of burial cases, plain, fine, cloth and draped, and robes, shreads, etc. apr29-3m

THE TIMES desires special correspondents in every town in Southwest Virginia the Shenandoah Valley.

GENERAL TRUSTRE—Hox. HENRY S. TROUT, President First National Bank, Roanoke, Va. DESIGNATED DEPOSITORY—Roanoke Trust, Loan and Safe